

ABSTRACT

[0073] A per column one-bit analog-to-digital converter for an image sensor. The analog-to-digital converter utilizes the difference between a reference signal current and a pixel signal current to obtain a digital output representative of the analog pixel signal in an efficient and simple manner. The output of the one-bit analog-to-digital converter is fed to a counter to give a representation of the brightness of the light-to-charge conversion in the associated pixel. The analog-to-digital converter does not use a reference voltage and precision elements and thus, does not suffer from power supply, noise and precision variations.